Family Planning and Reproductive Health

Key Facts and the Problem

Achieving good **reproductive health** remains a far-off goal in many parts of the world. This lack of care has repercussions. An estimated 810 women die of pregnancy-related causes each day, amounting to more than 295,000 deaths each year; 94% of these deaths occur in low- and middle-income countries (WHO, Maternal Mortality Fact Sheet, September 2019). However, access to **family planning** can greatly reduce these mortality rates. A Lancet study found that contraceptive use caused a 44% reduction in maternal mortality; these researchers also predicted that providing access to contraception for all those who need it would reduce worldwide maternal deaths by 29% (Ahmed et al 2012, Lancet). 214 million women of reproductive age in developing countries who want to avoid pregnancy are not using a modern contraceptive method.

What is Reproductive Health and Family Planning?

Reproductive health is a "state of complete physical, mental and social well-being and not merely absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes" (UN International Conference on Population and Development, 1994). Family planning is one of most basic and essential healthcare services that can promote and ensure reproductive health, yet 12% of women in most regions of the world have an unmet need for family planning (UN Department of Economic and Social Affairs, 2015).

Family planning allows people to attain their desired number of children and determine spacing of pregnancies. It is achieved through use of contraceptive methods and treatment of infertility. Family planning can reduce maternal mortality by preventing unwanted pregnancy and unsafe abortion and by promoting healthy pregnancies (WHO, Effects of Contraception on Obstetric Outcome, 2004). Enabling couples to determine whether, when, and how often to have children is crucial to safe motherhood and healthy families.

Benefits of family planning / contraception

Promotion of family planning – and ensuring access to preferred contraceptive methods for women and couples – is essential to securing the well-being and autonomy of women, while supporting the health and development of communities. Family planning has profound health, economic, and social benefits (WHO, Family Planning/Contraception Fact Sheet, February 2018):

1. Protects the health of women by reducing high-risk pregnancies:

Preventing pregnancy-related health risks in women: A woman's ability to choose if and when she has to become pregnant has a direct impact on her health and well-being. Family planning allows spacing of pregnancies and can delay pregnancies in young women at increased risk of health problems and death from early childbearing. It prevents unintended pregnancies, including those of older women who face increased risks related to pregnancy. By preventing unintended pregnancy, family planning/contraception prevents deaths of mothers. Family planning enables women who wish to limit the size of their families to do so. Evidence suggests that women who have more than 4 children are at increased risk of maternal mortality.

Reducing adolescent pregnancies: Pregnant adolescents are more likely to have preterm or low birth-weight babies. Babies born to adolescents have higher rates of neonatal mortality. Many adolescent girls who become pregnant have to leave school. It has long-term implications for individuals, families and communities.

2. Protects health of children by allowing sufficient time between pregnancies:

Reducing infant mortality: Family planning can prevent closely spaced and ill-timed pregnancies and births, which contribute to some of world's highest Infant Mortality Rates (IMRs). Infants of mothers who die as a result of giving birth also have a greater risk of death and poor health.

3. Fighting HIV/AIDS through providing information, counseling, and access to male and female condoms:

Preventing HIV/AIDS: Family planning can result in fewer HIV-infected babies and orphans by reducing the risk of unintended pregnancies in HIV-infected women. In addition, male and female condoms provide dual protection against unintended pregnancies and against STIs including HIV.

4. Reducing abortions

Reducing the need for abortions: Family planning/contraception reduces need for abortions, especially unsafe abortions by reducing rates of unintended pregnancies.

5. Supporting women's rights and opportunities for education, employment, and full participation in society:

Empowering people and enhancing education: Family planning enables people to make informed choices about reproductive health. Family planning represents an opportunity for women to pursue additional education and participate in public life, including paid employment in non-family organizations. Additionally, having smaller families allows parents to invest more in each child. Children with fewer siblings tend to stay in school longer than with many siblings. Thus, family planning reinforces people's rights to determine number and spacing of their children.

6. Protecting the environment by stabilizing population growth:

Slowing population growth: Family planning is the key to slowing unsustainable population growth and the resulting negative impacts on the economy, environment, and national and regional development efforts.

Who provides family planning / contraceptives?

It is important that family planning is widely available and easily accessible through midwives and other trained health workers to anyone who is in the reproductive age, including adolescents. Midwives are trained to provide (where authorized) locally available and culturally acceptable contraceptive methods. Other trained health workers, for example community health workers, also provide counseling and some family planning methods, for example pills and condoms. For methods such as sterilization, women and men need to be referred to a clinician.

Introduction to Contraception

How Pregnancy Occurs

In order for pregnancy to happen, sperm needs to meet up with an egg. Pregnancy officially starts when a fertilized egg implants in the lining of the uterus. Pregnancy is actually a pretty complicated process that has several steps. It all starts with sperm cells and an egg. Sperm are microscopic cells that are made in testicles. Sperm mixes with other fluids to make semen. Millions and millions of sperm come out every time — but it only takes 1 sperm cell to meet with an egg for pregnancy to happen (Planned Parenthood - How Pregnancy Happens, Accessed April 2020).

Average monthly cycle lasts 25 to 30 days. Following periods, hormones (chemical signals in the body) cause eggs in the ovaries to mature and subsequently trigger the uterine lining to thicken. Halfway through the monthly cycle, a rapid increase in levels of certain hormones causes one mature egg to leave an ovary (ovulation) and travel through a fallopian tube toward the uterus, while the uterine lining continues to build up. Sperm travels into the vagina, through the uterus, and into the fallopian tubes, where fertilization may occur. Fertilization is most likely to happen if sperms enter the vagina during the five days prior to ovulation or on the day of ovulation. Many people notice symptoms early in their pregnancy, but others may not have any symptoms at all. Common signs and symptoms of pregnancy can include:

- Missed period
- Swollen or tender breasts
- Nausea and/or vomiting
- Feeling tired
- Bloating
- Peeing more often than usual

Some early pregnancy symptoms can sometimes feel like other common conditions. So the only way to know for sure if you're pregnant is to take a pregnancy test. You can either take a home pregnancy test (the kind you buy at the drug or grocery store), or get a pregnancy test at your doctor's office or local PHC or CHC.

How Contraceptives Work

Contraceptives prevent pregnancy in a variety of ways (WHO, Family Planning/Contraception Fact Sheet, February 2018):

I) Non-Hormonal Methods of Contraception
   i) Preventing sperm from entering the female reproductive tract
   ii) Preventing viable sperm and oocytes (eggs) from meeting

Methods that prevent sperm from entering female reproductive tract	
Method	Description
Barrier contraceptives (condoms)	Male condom: Latex or plastic sheath. Female condom: Pouch inserted into the vagina.
Cervical cap	Silicone cup covered with spermicide cream or jelly inserted into the vagina.
Diaphragm	Shallow silicone cup inserted into the vagina.
Sponge	Small, round sponge inserted into the vagina. It covers the cervix and contains spermicide.
Methods that prevent viable sperm and oocytes from joining	
Sterilization	Vasectomy (males): The vas deferens is blocked to keep sperm out of seminal fluid. Tubal ligation (females): Fallopian tubes are blocked to prevent eggs from reaching the uterus.
Fertility Awareness-Based Methods (FAMs)	Tracking the woman's fertility cycle and using another contraceptive method around the time of ovulation. ("Rhythm Method")
Intrauterine Devices (IUDs)	Copper IUD: Small, "T-shaped" device inserted into uterus. Affects the way sperm move to prevent them from joining with an egg.
Lactational amenorrhea method (LAM)	Exclusively breastfeeding an infant <six months old as a means of temporary contraception for new mothers.

II) Hormonal methods of contraception
   i) Thickening cervical mucus and preventing ovulation

Hormonal contraceptives contain synthetic versions of hormones usually produced by a woman's ovaries. Combined hormonal contraceptives contain estrogen and progestogen, while some contraceptives contain only progestogen. These hormones suppress the release of other hormones required for ovulation. This also suppresses the growth of follicles, the structures within the ovaries in which a woman's eggs mature prior to ovulation. When ovulation is prevented, an oocyte is not released from the ovary and cannot encounter sperm, thereby preventing pregnancy. In addition, progestogen signals the woman's cervix to produce thicker mucus, which

makes it more difficult for sperm to move from the vagina into the uterus. Certain emergency contraceptive pills work by delaying ovulation.

Method		Description	Effectiveness on use (%)		Comments
			Correct + consistent	Common	
Oral contraceptives (orally once/day; to be taken at same time each day)	Combined oral contraceptives (COCs) or 'pill'	2 hormones (estrogen + progestogen)	>99	92	Reduced risk of endometrial and ovarian cancer
	Progestogen-Only Pills (POPs) or "the minipill"	Only progestogen hormone, no estrogen	99	90-97	Can be used with breastfeeding
Injection	Progestogen-only injectables	Injected into muscle or under skin in arm; prevents pregnancy for 2-3 months	>99	97	Fertility returns 1-4 months post use; irregular vaginal bleeding common, but not harmful
	Monthly injectables or Combined injectable contraceptives (CICs)	Injected monthly into the muscle, contains estrogen and progestogen	>99	97	Irregular vaginal bleeding common, but not harmful
Combined contraceptives patch/ring (estrogen + progestogen)	Combined contraceptives Dermal patch	A thin plastic patch sticks to the skin and releases hormones	New and research on effectiveness is limited. Studies report that it may be more effective than the COCs		Comparable safety and pharmacokinetic profile to COCs with similar hormone formulations
	Combined contraceptives Vaginal Ring (CVR)	Small ring that continuously releases hormones is inserted in vagina once a month for 3 weeks/month			
Hormonal IUD (Levonorgestrel)		A small, "T-shaped" plastic device that releases progestogen, levonorgestrel, is inserted into the uterus	>99		Reduces menstrual blood lost, cramps and endometriosis; amenorrhea (no bleeding) in some
Implants (Healthcare provider must insert and remove)		Small, flexible plastic rods/capsules that release progestogen are inserted under skin of upper arm	>99		Used for 3-5 years; irregular vaginal bleeding common, not harmful
Emergency contraception pills (ulipristal acetate 30 mg or levonorgestrel 1.5 mg)		Pills taken to prevent pregnancy up to 5 days after unprotected sex	If all 100 women used progestogen-only emergency contraception, one would likely become pregnant		Does not disrupt an already existing pregnancy

Contraceptive use

Contraceptive use has increased in many parts of world, especially in Asia and Latin America, but continues to be low in sub-Saharan Africa. Globally, use of modern contraception has risen slightly, from 54% in 1990 to 57.4% in 2015. Regionally, the proportion of women aged 15–49 reporting use of a modern contraceptive method has risen minimally or plateaued between 2008 and 2015. In Africa it went from 23.6% to 28.5%, in Asia it has raised slightly from 60.9% to 61.8%, and in Latin America and the Caribbean it has remained stable at 66.7%. Use of contraception by men makes up a relatively small subset of the above prevalence rates.